TABLE OF CONTENTS

No. 1. January–February

The Protostelida—a new order of the Mycetozoa, Lindsay S. Olive 1
The role of the mycologist in medicine, Norman F. Conant 30
Notes on clavarioid fungi. VI. Two new species and notes on the origin of Clavulina, Ronald H. Petersen 39
Puccinia holcina and P. poarum redefined, H. C. Greene and George B. Cummins 47
Effect of warming rates on the viability of frozen fungous spores, R. D. Goos, Elmer E. Davis, and Winifred Butterfield 58
Typification of Alternaria, Stemphylium, and Ulocladium, Emory G. Simmons 67
Sporangial germination of Phytophthora from papaya, Minoru Aragaki, Ross D. Mobley, and Richard B. Hine 93
Taxonomic studies in the Myxomycetes I. The genus Macbrideola, Constantine J. Alexopoulos 103
Some species of Lambertella from India, V. P. Tewari and D. C. Pant ... 117
The ultrastructure of meiosis in three species of Physarum, Henry C. Aldrich 127
Mycoparasitism by Basidiomycetes in culture, N. T. Griffith and H. L. Barnett 149
Lycogala exiguum, G. W. Martin 155
Rape seed extract agar: a new medium for production and detection of oospores of heterothallic species of Phytophthora, Mokhtar M. Satour 161
Two new members of the Physarales, Donald T. Kowalski 167
Some cultural and ultrastructural aspects of Smittium culisetae (Trichomycetes) from mosquito larvae, David F. Farr and Robert W. Lichtwardt 172
Review 183
Notice 186

No. 2. March–April

Lawrence Marion Ames (1900–1966), William W. Diehl 187
Conspecificity of Basidioradulum (Radulum) radula and Corticium hydnans, Mildred K. Nobles 192
The origin of self-sterile, cross-fertile strains and culture sterility in Ceratocystis fimbriata, R. K. Webster and E. E. Butler 212
The inheritance of sexuality, color and colony type in Ceratocystis fimbriata, R. K. Webster 222
Abnormal cell behavior in the heterothallic Myxomycete Didymium iridis, Ian K. Ross 235
The Nectriella element of "Hyalodothis," Ruth Horner Arnold 246
A new geophilic Trichophyton, Libero Ajello and Shu-Lan Y. Cheng 255
New records, taxa, and notes on high altitude, west American rust fungi, Joe F. Hennen 264

A new heterothallic Pythium from southern United States, W. A. CAMPBELL AND F. F. HENDRIX, JR. 274
A new type of nuclear life cycle in Hemileia vastatrix, RICHARD B. RAJENDREN 279
Structure and reproduction of Paracoccidioides loboi, JOÃO S. FURTADO, THALES DE BRITO, AND EDNA FREYMÜLLER 286
Hypoxylon multiforme: cytology of the ascus, JACK D. ROGERS 295
Central American Pezizales. II. The genus Cookeina, WILLIAM C. DENISON 306
Aleuriospore formation in four related Aspergillus species, R. S. PORE AND HOWARD W. LARSH 318
A new genus of Mucorales, DAVID MALLOCH 326
An electrophoretic survey of esterases, phosphatases, and leucine aminopeptidases in mycelial extracts of species of Aspergillus, K. H. NEALSON AND E. D. GARBER 330
Sporobolomyces roseus. I. Ultrastructure, DON C. PRUSSO AND KENNETH WELLS 337
Notes on the genus Helvella in North America, HENRY DISSING AND MORTEN LANGE 349
Notes and Brief Articles
Comments on Suillus amabilis and Suillus lakei, ALEXANDER H. SMITH AND HARRY D. THIERS 361
Dipyxis, a new genus of Uredinales, GEORGE B. CUMMINS AND JOHN W. BAXTER 367
A note on the mitotic apparatus in the rhizomorph meristem of Armillaria mellea, JEROME J. MOTTA 370
The 1961 Indiana Foray, WM. BRIDGE COOKE 375
Reviews 382

No. 3. MAY–JUNE

Studies in the genus Tolyposporella, M. J. THIRUMALACHAR, MARVIN D. WHITEHEAD, AND MURIEL J. O'BRIEN 389
Fungus spores in East African lake sediments. V., FREDERICK A. WOLF 397
Benthic and planktonic Phycomycetes from northern Michigan, R. A. PATERSON 405
Penetration of wood cells by special extensions of Pestalotia hyphae, DON RITCHIE 417
The plasmodium of the myxomycete Licea biforis in agar culture, CONSTANCE WOLLMAN AND CONSTANTINE J. ALEXOPOULOS 423
Nuclear division in Saprolegnia as revealed by colchicine, MIRIAM K. SLIFKIN 431
Thalassiomycetes. X. Variation in growth and reproduction of two isolates of Corollospora maritima, S. P. MEYERS AND E. SCOTT 446
Two new species of clavarioid fungi, CHESTER R. LEATHERS AND ALEXANDER H. SMITH 456
The Myxomycetes of India—XVIII, K. S. THIND AND S. S. DHILLON 463
The Helotiales of India—VI, K. S. THIND AND S. S. SAINI 467
A new species of Anixiopsis, JOHN B. ROUTIEN 475
Zygospores and spore appendages of Harpella (Trichomycetes) from larvae of Simuliidae, ROBERT W. LICHTWARDT 482
Some effects of rare earth elements and yttrium on microbial growth, DWIGHT E. TALBURT AND G. T. JOHNSON 492
Notes on western fungi. I., ORSON K. MILLER, JR. 504

Adiaspiromycosis in small mammals of New Mexico, ROBERT L. TAYLOR, BRYAN E. MILLER, AND JAMES H. RUST, JR. 513
Notes and Brief Articles
The 1962 Oregon Foray, WM. BRIDGE COOKE, G. BAKER, AND C. M. LEACH 519
Isolation and pure culture of aquatic Phycomycetes by membrane filtration, CHARLES E. MILLER 524
The fine structure of the ascus septum in Ascodesmis sphaerospora and Saccobolus kerverni, GEORGE CARROLL 527
New record of a large Cyathus from western Canada, HAROLD J. BRODIE 532
Dasyscyphus virgineus on dead cranberry stems, R. J. FRIEND AND D. M. BOONE 533
Fusicoccum canker, a new disease of Russian olive, J. C. CARTER AND CHARLES M. SACAMANO 535
Virgatospora: a new genus of Stilbellaceae, DAVID E. FINLEY 538
A simple method for preparing dried reference cultures, FLORA G. POLLACK 541
Grouping of spores in agaric spore-prints, C. T. INGOLD AND M. H. ZOBERI 544
Ultrasounds applied to the study of hyphal systems in Polyporaceae, OSWALDO FIDALGO 545
Cyphelium sancti-jacobi, perfect or imperfect?, FREDERIC H. ERBISCH .. 548
Reviews 552

No. 4. JULY–AUGUST

Dow V. Baxter (1898–1965), ALEXANDER H. SMITH 565
Some viewpoints on the phylogeny of rust fungi. VI. Biogenic radiation, E. E. LEPPIK 568
Studies on the genus Chaetomium. I. Heterothallism, HARI K. SETH 580
Mechanism of sex in Phragmidiella heterophragmae (Uredinales) A. V. SATHE 585
Sexuality in Pythium sylvaticum: heterothallism, K. E. PAPA, W. A. CAMPBELL, AND F. F. HENDRIX, JR. 589
Studies on Deuteromycetes, LEE BONAR 596
Control of tarsonemid mites in fungal cultures, ROGER S. SMITH 600
Morphogenesis of Schizophyllum commune. II. Effect of microaerobic growth, MARVIN N. SCHWALB AND PHILIP G. MILES 610
Morphology and cytology of Diplocarpon maculatum on Crataegus. II. Initiation and development of the apothecium, E. A. STOWELL AND M. P. BACKUS 623
The mating type system of the Myxomycete Physarum flavicomum, MARY R. HENNEY 637
Reisolation of Sarcinomyces inkin and its transfer to the genus Trichosporon, LÍDIA DO CARMO-SOUSA AND N. VAN UDEN 653
Cell wall structure of Pythium debaryanum, BARBARA A. COOPER AND JEROME M. ARONSON 658
Influences of temperature and adenine concentration upon the cultural instability of a red adenine auxotroph of Candida albicans, J. T. BISH AND A. SARACHEK 671
Sexual reproduction in Histoplasma capsulatum, LIBERO AJELLO AND SHU-LAN CHENG 689
Evaluation of taxonomic characters in the genus Conidiobolus, with key to known species, M. C. SRINIVASAN AND M. J. THIRUMALACHAR 698

Notes and Brief Articles
Diurnal periodicity in airborne bacteria, S. M. PADY AND C. L. KRAMER 715
Torulomyces and Monocillium, G. L. BARRON 716
Observations on Riessia semiophora, R. D. GOOS 718
Production of keto acids by Ceratocystis fagacearum and Ceratocystis coerulescens, R. P. COLLINS AND K. KALNINS 722
Formation of amoeboid cells from the plasmodium of a Myxomycete, IAN K. ROSS AND R. J. CUMMINS 725
Ergosterol and the ultraviolet requirement for production of conidia in Stemphylium solani, THOMAS SPROSTON AND R. B. SETLOW 732
Survival of fungus cultures maintained under mineral oil for twelve years, GEORGE N. LITTLE AND MORRIS A. GORDON 733
Influence of near-ultraviolet light on hyphal elongation of Verticillium, W. H. BRANDT 736
Impaction patterns of small fungus spores collected on edges of microscope slides exposed in intermittent rotoslide samplers, R. C. DE GLOOT 739
Reviews 744
Notices 754

No. 5. SEPTEMBER–OCTOBER

Cytophotometry of nucleolar and cytoplasmic ribonucleic acid and basic protein in the plasmodial slime mold Physarum pusillum, C. DALE THERRIEN 757
Type studies in the clavarioid fungi. I. The taxa described by Charles Horton Peck, RONALD H. PETERSEN AND PAUL D. OLEXIA 767
Micro-evolution in Auricularia auricula, E. G. DUNCAN AND J. A. MACDONALD 803
Stephensia shanori. I. Cytology of the ascus and other observations, FRANCIS A. UECKER 819
Polyporaceae from Trinidad and Tobago. II., OSWALDO FIDALGO AND MARIA ENEYDA PACHECO KAUFFMANN FIDALGO 833
Occurrence of falcate antheridia in Pythium species, particularly in P. irregulare and its synonym, P. polymorphon, O. VAARTAJA 870
Growth and oxygen-uptake responses of Cunninghamella echinulata on even-chain fatty acids, HAROLD L. LEWIS AND G. T. JOHNSON 878
An undescribed species of Curvularia pathogenic to Dichanthium annulatum, R. A. KILPATRICK AND E. S. LUTTRELL 888
Mycoecology of willow and cottonwood lowland communities in southern Wisconsin. II. Soil micro fungi in the sandbar willow stands, S. E. GOCHENAUR AND M. P. BACKUS 893
On the ecology of Herpotrichia nigra, HORACE R. SIMMS 902
Notes and Brief Articles
The 1963 Massachusetts Foray, WM. BRIDGE COOKE, MARGARET E. BARR BIGELOW AND HOWARD E. BIGELOW 910
Atypical and typical germination of uredinoid teliospores of Hemileia vastatrix, R. B. RAJENDREN 918
Characterization of fungus spore populations of crop residues by direct observation and plating of comminuted residue, H. S. MACWITHEY 921
The pattern of mycological taxonomic literature, G. C. AINSWORTH 925
First occurrence of Thermoascus aurantiacus from animal and human sources, R. S. PORE AND HOWARD W. LARSH 927
A restudy of Ceratocystis penicillata and report of two American species of this genus from Europe, Ross W. DAVIDSON, HELENE FRANCKE-GROSMANN, AND AINO KÄÄRIK 928

The conidial state of Peziza brunneoatra, J. W. PADEN 932
Myxomycetes cultured from the peel of banana fruit, ELMER E. DAVIS AND WINIFRED BUTTERFIELD 935
Review 938

No. 6. NOVEMBER–DECEMBER

Joseph C. Gilman (1890–1966), LOIS H. TIFFANY 939
A taxonomic study of Pythium irregulare and related species, J. A. BIESBROCK AND FLOYD F. HENDRIX, JR. 943
The relation of the carbon-nitrogen ratio in the basal medium to sexual reproduction in species of Phytophthora, J. ANTONIO LEAL, M. E. GALLEGLY, AND VIRGIL GREENE LILLY 953
A comparison of cellulose production in the genus Ceratocystis, MARILYNN J. SMITH, SISTER CLAIRE MARIE PATIK, AND M. A. ROSINSKI 965
An undescribed fungus associated with a root and crown rot of birdsfoot trefoil (Lotus corniculatus), STANLEY A. OSTAZESKI 970
Ambrosia fungi: a taxonomic revision, and nutritional studies of some species, LEKH R. BATRA 976
The fine structure of ascospore formation in Pyronema domesticum, FONTAINE REEVES, JR. 1018
West Indian species of Hymenochaete, FONTAINE REEVES, JR. AND A. L. WELDEN 1034
Cultural studies of Polyporus meliae and two similar species, HAZEL H. MCKAY 1050
Studies on the genus Archangium (Myxobacterales). II. The effect of temperature and carbohydrates on some physiological processes, JAMES C. MCDONALD 1059
Hormone-like substances which increase carotenogenesis in + and − sexes of Choanephora cucurbitarum, WILLIAM J. VAIL, CLIFTON MORRIS, AND VIRGIL GREENE LILLY 1069
Observations on the Dianemaceae, DONALD T. KOWALSKI 1075
Cytological and morphological studies of a new species of Phlyctochytrium, CLYDE J. UMPHLETT AND LAURITZ W. OLSON 1085
An undescribed species of Exosporium on grain of Secale cereale, J. M. CARRANZA AND E. S. LUTTRELL 1097
A new species of Ceratocystis on aspen, T. E. HINDS AND R. W. DAVIDSON 1102
Light-cholesterol relationships in morphogenesis of Phytophthora palmivora and P. capsici sporangia, JAMES W. HENDRIX 1107
Notices 1112
Errata 1115
Mycologia—Financial Report 1116
Index to Volume 59 1117